VERMONT
DEPARTMENT OF HEALTH

Health Advisory
January 29, 2016

TO: Vermont Healthcare Providers and Clinical Laboratories
FROM: Patsy Kelso, PhD, State Epidemiologist for Infectious Disease

Interim Recommendations for Zika Virus

Background

Zika virus is a mosquito-borne flavivirus transmitted primarily by *Aedes* mosquitoes. The mosquito species that transmit Zika are not present in Vermont, and experts do not expect to see local transmission of Zika virus in our region of the United States. Cases have been reported among returning travelers to the continental United States, and we expect to see cases among travelers returning to Vermont.

The Centers for Disease Control & Prevention issued a travel alert for people traveling to countries and territories where Zika virus transmission is ongoing. For an up-to-date list of areas with active Zika virus transmission: http://www.cdc.gov/zika/geo/index.html.

An estimated 80 percent of people infected with Zika virus are asymptomatic. Symptomatic disease is generally mild and characterized by acute onset of fever, maculopapular rash, arthralgia, or nonpurulent conjunctivitis. Symptoms usually last from several days to one week. Severe disease requiring hospitalization is uncommon. Fatalities are rare. In the current outbreak in Brazil a marked increase in the number of infants born with microcephaly has been reported, however it is not known how many of the microcephaly cases are associated with Zika virus. The full spectrum of outcomes associated with Zika virus infections during pregnancy is unknown. Brazil is also reporting an increase in cases of Guillain-Barré syndrome, although the relationship between Zika virus infection and Guillain-Barré syndrome is not well established.

Diagnostic Testing for Symptomatic Travelers

Asymptomatic travelers who return from areas with active Zika virus transmission do not require testing for Zika virus.

Zika virus infection should be considered in patients with acute onset of fever, maculopapular rash, arthralgia, or conjunctivitis who traveled to areas with active transmission in the two weeks prior to illness onset. If *two or more* of these symptoms are present, specimens may be submitted to the Department of Health Laboratory for testing at CDC. Consult with Infectious Disease Epidemiology at (802) 863-7240 prior to submitting specimens.

Collect serum for RT-PCR within the first week of illness. IgM and neutralizing antibody testing can also be performed on specimens collected more than three days after onset of illness, however serum collected within seven days of onset may not have detectable virus-specific IgM antibodies and a convalescent sample may be needed to rule out infection. IgM antibodies against Zika, dengue, yellow fever, and West Nile viruses have strong cross-reactivity which may generate false positive results in serologic tests.

Specimens must be accompanied by the following information:

- Patient's name
- Clinical symptoms
- Date of onset of symptoms
- Date of specimen collection
- Pertinent travel history (locations and dates)

Document this information on the Vermont Department of Health Laboratory Clinical Test Request form (Micro 220). The form can be found online at: http://healthvermont.gov/enviro/ph_lab/documents/Laboratory_Clinical_Test_Request_Form.pdf

At least 0.5 mL of serum is required for serology testing. Whole blood will not be accepted. The specimen should be kept cold or frozen. Test results are normally available seven to 10 days after specimen receipt by CDC. In addition to testing for Zika, tests for chikungunya and dengue viruses may be performed at CDC depending on the timing of the specimens relative to illness onset and on clinical information.

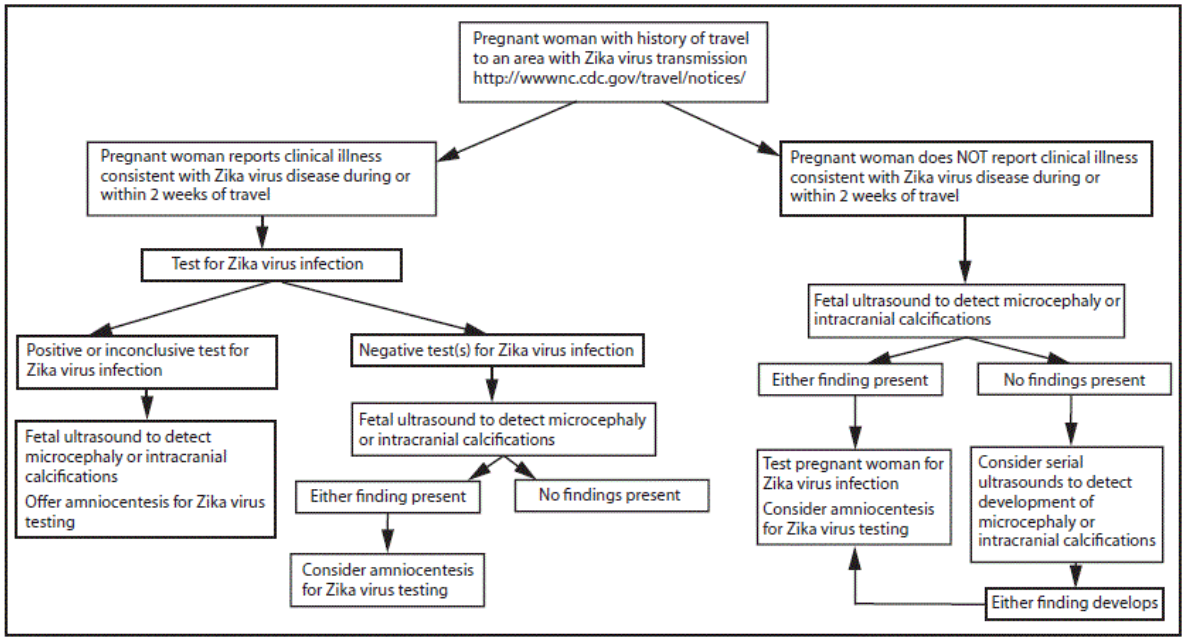
Reporting – As an arboviral infection, cases of Zika virus infection are reportable to the Vermont Department of Health. Call Infectious Disease Epidemiology at 802-863-7240 to report cases.

Treatment

No specific antiviral treatment is available for Zika virus illness; treatment is supportive. Because of similar geographic distribution and symptoms, patients with suspected Zika virus infection should also be evaluated and managed for possible dengue or chikungunya virus infection. Aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) should be avoided until dengue can be ruled out to reduce the risk of hemorrhage. In particular, pregnant women with fever should be treated with acetaminophen.

Pregnant Women

Health care providers should ask ALL pregnant women about recent travel. According to the CDC algorithm below, testing pregnant women who have traveled to areas with Zika virus transmission is dependent upon whether or not they have symptoms. Evaluation of the fetus, however, should be undertaken based upon the mother's travel history alone – regardless of maternal symptoms or any test results.



From: Petersen EE, Staples JE, Meaney-Delman, D, et al. Interim Guidelines for Pregnant Women During a Zika Virus Outbreak — United States, 2016. MMWR Morb Mortal Wkly Rep 2016;65:30–33. DOI: http://dx.doi.org/10.15585/mmwr.mm6502e1

For specific questions related to pregnancy, contact Breena Holmes MD, director of maternal and child health at the Department of Health: breena.holmes@vermont.gov or Marjorie Meyer MD, director of the Maternal-Fetal Medicine Division at the UVM College of Medicine: Marjorie.Meyer@uvm.edu.

For more information:

About Zika virus for healthcare providers:
http://www.cdc.gov/zika/hc-providers/index.html

CDC guidance for evaluating infants with possible congenital Zika infection:
http://www.cdc.gov/mmwr/volumes/65/wr/mm6503e3.htm

CDC Qs & As for obstetrical providers:
http://www.cdc.gov/zika/hc-providers/qa-pregnant-women.html

Society for Maternal Fetal Medicine Practice Advisory:
https://s3.amazonaws.com/cdn.smfm.org/publications/220/download-f534ad5c55df64b3b5257cd0fdf92103.pdf

HAN Message Type Definitions
Health Alert: Conveys the highest level of importance; warrants immediate action or attention.
Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.
Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.
Info Service Message: Provides general correspondence from VDH, which is not necessarily considered to be of an emergent nature.